

13. FARM CHEMICALS



THE HAZARD

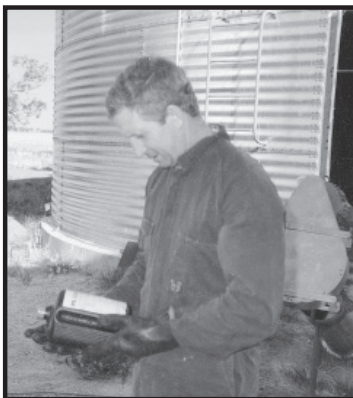


Note: This Guidance Note has been produced to provide guidance in managing risks to human health associated with pesticide storage and use on farms in Australia.

It is strongly recommended that all farm workers who use or are responsible for pesticides use on farms undertake a Farm Pesticide User Training Course (Farmcare), available in each Australian state. This Guidance Note is not a substitute for that course.

Pesticides are defined as substances used to destroy, prevent, control, attract or repel pests or to regulate plant growth. They include:

- Insecticides
- Herbicides
- Fungicides
- Bactericides
- Plant growth regulators
- Defoliants
- Rodenticides
- Biological control agents



The major human health hazard from many of these pesticides lies in their toxicity or ability to poison humans if exposure occurs. The carrier or solvent component of the pesticide may also have health effects. Absorption can occur through inhalation, skin absorption, ingestion or eye contact. Others may be exposed to pesticides through contamination of the air, water and food.

Contamination from residue accumulation occurs when pesticide residues remain active or break down into substances which are toxic.

Some pesticides are flammable which affects the safe storage of pesticides.

While agricultural industries are working to reduce the need for pesticides in their various production processes, there is still a heavy dependence on pesticides in most industries. Industries associated with high pesticide exposure potential for humans include:

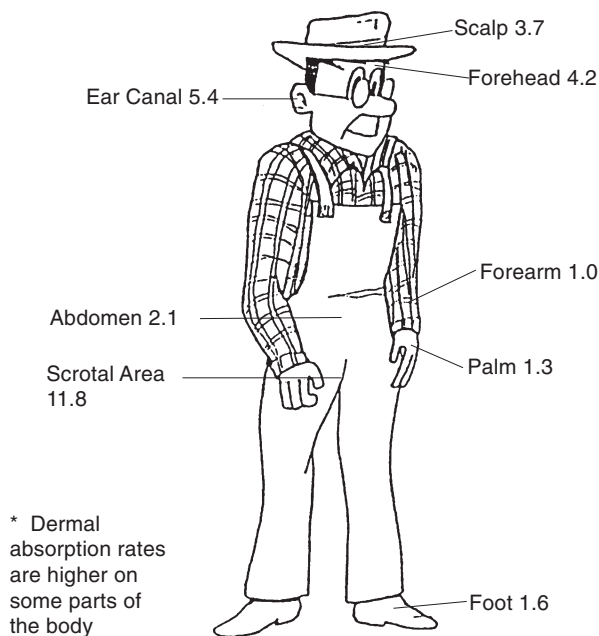
- Greenhouse cultivation
- Cotton
- Vegetables/orcharding
- Rice
- Sheep
- Grain and summer crops (including lucerne/hay)
- Bananas



THE HAZARD

In most accidental poisonings, the skin is the entry point for the pesticide. The neck, chest, forearms and hands are the most common absorption areas. The following diagram illustrates the skin absorption rates of pesticides.

**PESTICIDE ABSORPTION RATES
Compared to Forearm which is 1.0**



Source: New South Wales Agriculture and Fisheries

HAZARD IDENTIFICATION

When conducting a pesticide hazard audit, look for all possible hazards associated with pesticides and their application. Consider the pesticide user, the pesticide, its application and the work environment and the interaction between these.

Further reading on hazards which relate to pesticides can be found in the following Health & Safety Guidance Notes:

- * Farm Machinery (Number 5)
- * Ergonomics and Manual Handling on Farms (Number 6)
- * Children on Farms (Number 7)
- * Animal Handling (Number 10)
- * Industry Specific Notes

1. Who is at risk

- Anybody who lives or works on a farm where pesticides are stored or/and used is at risk from those pesticides.
- Particular occupational groups are more at risk of poisoning from pesticides.

These groups are:

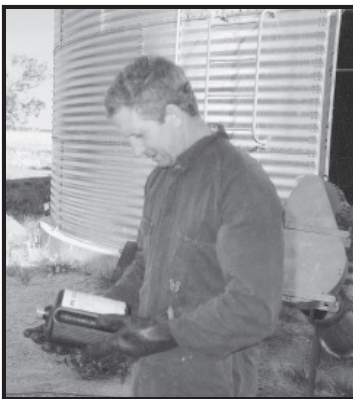
- Those involved in the production and processing of pesticides
- People involved in pesticide spraying such as mixers, loaders, applicators, pilots and markers
- People who enter sprayed fields or crops
- People who handle contaminated articles - spray equipment, clothing etc.
- Bystanders who may be inadvertently exposed.

Applicators who are noted to be at risk of exposure include:

- Orchardists, vegetable growers and those involved in viticulture
- Pest control operators
- People involved in cotton production, including cotton chippers and bug checkers
- Those involved in sheep dipping/jetting
- Those using pesticides in greenhouse production
- Backpack sprayers are at risk of pesticide exposure when there is a mechanical fault or because of having the pesticide spread down their neck when they bend over.
- Smaller, lighter people are likely to experience more symptoms of poisoning than others. Children, in particular, are at greater risk because of their lack of awareness of the hazard and the pronounced toxic effects on their bodies. This increased effect is due to the 'body weight: surface area' ratio of a child. Children may also be at risk because of their habit of putting their fingers and other objects in their mouths and lack of clothes which fully cover exposed skin on the arms and legs.
- Reproduction, including foetal development, may be affected if the father or mother are exposed to certain pesticides.
- There is a great variation in susceptibility between individuals. People who are more prone to allergies are probably at greater risk of illness after exposure to pesticides.

2. Nature of the potential injury/illness

The effects of pesticide poisoning may occur quickly or develop gradually over a long period of time. Sometimes, long term poisoning which builds up after repeated exposure is more dangerous because permanent damage has been done by the time the poisoning is treated.



Toxic effects of pesticides can be acute (symptoms occur very quickly after exposure) or chronic (symptoms are delayed or ongoing).

Acute effects depend on the particular pesticide and include:

- Headaches
- Blurred vision
- Sweating
- Rapid pulse
- Heart palpitations
- Vomiting
- Diarrhoea
- Stomach cramps
- Tingling nerves
- Muscle twitching
- Fits
- Convulsions
- Breathing difficulties
- Drooling
- Reproductive effects
- Death

Chronic effects, again, depend on the particular pesticide but may include:

- Cancer
- Skin problems
- Nervous system disorders
- Blood disorders
- Liver disorders
- Allergic effects-skin irritation, rhinitis, asthma
- Reproductive disorders

Entry of pesticides into the body occurs in a number of ways:

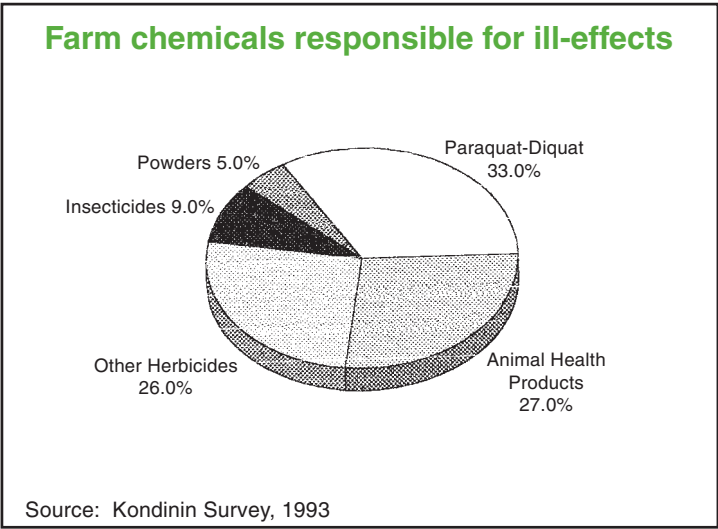
- Skin contact and absorption, including the eye
- Inhalation of fumes, vapours and dusts into the lungs
- Ingestion while eating, drinking, smoking, accidental swallowing while blowing to clear nozzles or intentional swallowing - children and others

A number of studies have shown that exposure to organophosphate pesticides is associated with nervous system damage. Low level chronic exposure to organophosphate pesticides may result in damage to the peripheral nerves and the nervous system which affects mental health and leads to difficulties with memory and concentration.¹

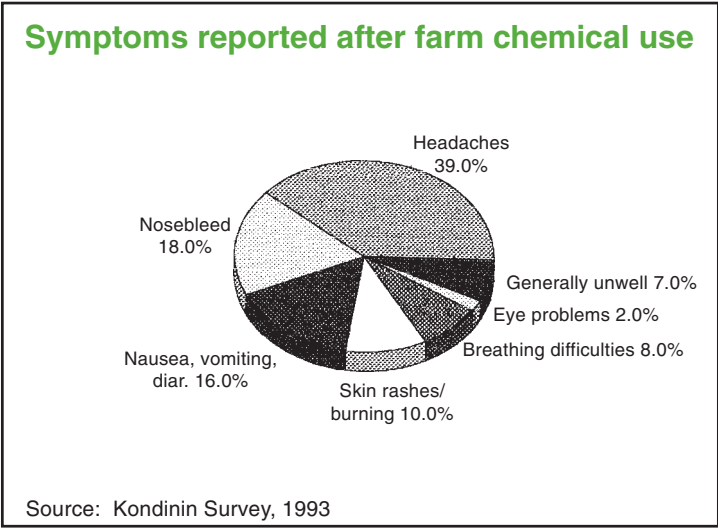
From a national survey in 1993, 36% of the 920 farmers surveyed reported ill-effects after using pesticides. ²The following chart shows the types of pesticides responsible for ill-effects in this survey.

¹Stephens, R. et al. *Neuropsychological effects of long-term exposure to organophosphates in sheep dip*. The Lancet. 345: 1135-1139

²Kondinin National Agricultural Survey. April 1993



The symptoms experienced after exposure to the pesticides in this survey were as shown in the following chart.



3. Degree of risk

When assessing the degree of risk associated with a particular pesticide hazard, the following questions should be considered:

- How commonly are people affected by pesticides ?
- How severe is the likely resulting illness ?
- How often and for how long are people exposed to hazards associated with pesticides ?

How commonly are people affected by pesticides ?

Acute poisoning from certain types of pesticides does occur but is not common. Vague symptoms which may relate to pesticide exposure are not uncommon. Long term effects of pesticide exposure are as yet unknown. The likelihood of exposure to pesticides and subsequent health effects is influenced by the following:



The pesticide handler

- Training of the handler. Safer work practices are more likely to be adopted when operators have been trained in the safe use of pesticides.
- Age of the user. Very old or very young people are more likely to be affected and generally more severely affected.
- Attitude of the user is influenced by training and age. A handler with an attitude that they are not susceptible to the effects of pesticides is less likely to use correct techniques with pesticides and wear appropriate personal protective equipment and clothing.
- Low body weight.
- Susceptibility of the individual to allergies.

The pesticide

- Toxicity. This is the measure of how poisonous the pesticide is. Often expressed as an LD50 rating. The smaller the LD50 value, the more toxic the active constituent. Toxicity varies with the type of pesticide (Strychnine and Paraquat are very toxic), its composition and the rate and method of absorption into the body. Inhaled pesticides can be rapidly transferred across lung surface to blood supply.
- Application techniques which use greater volumes or saturations of pesticides such as dipping sheep carry more risk than a technique such as backlining.
- Handling the concentrate eg during decanting and mixing, increases the risk of pesticide exposure. The risk is greatest when decanting is done manually and least when mechanical means are used.
- Pesticide interaction may occur if some groups of pesticides are stored in close proximity with others. The risk of exposure may then be increased if leakage occurs.

The working environment:

- Inadequate ventilation while mixing or applying a pesticide increases the risk of pesticide exposure.
- Sunlight increases the risk of skin sensitivity after using synthetic pyrethroids.
- High temperature and/or humidity increases the risk of pesticide exposure because people are less likely to wear the appropriate personal protective equipment and clothing due to personal discomfort. The risk may also increase because of pesticide composition changes occurring under high temperatures.
- Depending on method of application, windspeed and direction can increase the risk. Aerial spraying requires a moderate but steady wind to disperse evenly. However, when spraying from the ground, high wind conditions increase the risk of exposure. A following wind increases the risk of exposure.
- Waterways close to where the pesticide is applied increase the risk of environmental contamination, and hence exposure to other people.

How severe is the likely resulting illness?

Pesticide exposure can result in transient or mild symptoms such as headaches, rashes and stomach cramps requiring time off work.

However, high levels of exposure can also result in more severe effects such as breathing difficulties, convulsions or even death.

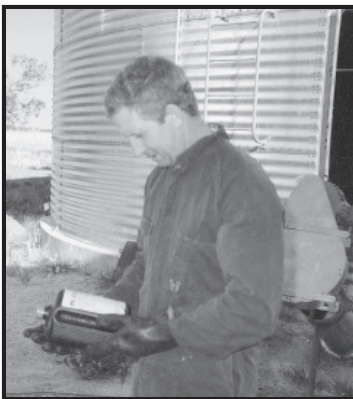
Chronic exposures may result in damage to the nervous system, and perhaps cancer.



How often and for how long are workers exposed to the hazards associated with a particular pesticide ?

The more often a pesticide is used and the longer the period over which it is used, the more likely it is that damaging exposure will occur.

As pesticide-related illness is relatively common and the severity can vary from mild symptoms to death, the level of risk associated with pesticides should generally be assessed as medium-high and action should be planned or taken as soon as possible.



CONTROL MEASURES

The following control measures will not be suitable for everybody. They are presented as options which are available to reduce the risk of illness or death while not interfering with farm productivity. In fact, well-designed control measures should increase productivity by decreasing human physical demands and reducing the cost of illness. An option which may seem impractical to one person in their particular situation may well be possible for somebody else in their circumstances. Where an option may not be practical at present, it may become so in the future; for instance, when planning the purchase of new pesticides or personal protective equipment.

1. *Elimination of the hazard*

Elimination could involve removing the need for pesticide use. This means using the elements of an integrated pest management system which uses natural controls such as climatic factors, traps, cultural controls such as crop rotation and fire, or biological control agents to eliminate pests instead of pesticides.

2. *Substitution for a lesser hazard*

Substitution for a lesser hazard involves using the least toxic pesticide to do the job effectively and economically. This is an important basic principle for pesticide safety.

3. *Engineering/design options*

Improved equipment and systems designed to reduce chemical exposure is now available.



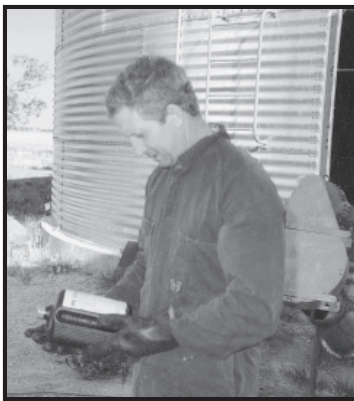
- Ensure good ventilation in the design of areas where pesticides are mixed. This is achieved through windows, fans and vents.
- Mechanical suction methods of transferring toxic pesticides from container to spray tank are available. These are of two types; one which siphons water to the spray tank which can be followed by pesticides if alterations are made to the system or a more recent model which transfers pesticides to the spray tank from drums which are re-usable. A vortex mixing system can then be used. The pesticide concentrate is added to a water supply and sprayed without having to be premixed.
- Spray from an enclosed cab with closed circuit air conditioning and approved air filters - carbon filters for removing vapour and particulate filters for removing dust and mist.
- A trailing spray implement is available which reduces the risk of off-target pesticide application by brushing pesticide onto weeds using an electronic timer for flow control.
- Another trailing spray implement is available with a 'shroud' which limits spray drift away from the target crop.
- Pressure regulation valves can be fitted to minimise mist-size droplets. A gauge also needs to be fitted.
- There are mechanical flushers available which flush the pesticide from the container directly onto the target area, reducing wastage and ensuring that containers are completely free of pesticide.
- Ensure good lighting in the pesticide store for reading pesticide labels and prevention of falls. A skylight could well be helpful but make sure direct light cannot fall directly on pesticide supplies.
- Storage can be secured from intruders and children using a sturdy lock. Locks may be required by law, depending on the type of pesticide.
- Kit-style pesticide storage sheds are available which include all the essential features with options such as fire extinguishers, showers, and sumps.
- Cement pesticide handling pads will reduce soil contamination.

4. Safer work practices and procedures

Aim for **TARGET-SPECIFIC application** and **NIL human exposure** as the safest and most cost-efficient practice.

Before using the pesticide

- ✓ Select the least toxic pesticide which will effectively and economically do the job.
- ✓ Some states require that persons handling organophosphate pesticides undergo health surveillance. This involves having a baseline blood test (cholinesterase)



- ✓ All people who handle and use pesticides have the necessary skills to undertake the job safely and effectively. Optimally they have completed an approved training program such as the National Farm Pesticide User's Training Program (FarmCare). This is available through TAFEs and other providers in different states. Contact your state/territory Farmer's Association for details on where the courses are held.
- ✓ Make sure any broken skin such as scratches or cuts are covered at all times and change the bandages daily as they may become contaminated.
- ✓ Always read the label on the product to be used, particularly if you have never before used the pesticide or it is a new batch as recommendations may change from one season to the next. It is a legal requirement to read and follow the label instructions and any use other than that indicated on the label is illegal. Obtain the Material Safety Data Sheet from your supplier for further information. This will have information on the health hazard, First Aid procedures, toxicity, storage and handling.
- ✓ Measuring containers and other containers should be labelled and used only for that purpose.
- ✓ Ensure that equipment is in working order and there are no leaks. Air conditioning filters must be changed regularly according to supplier advice.
- ✓ Calibrate equipment before use and maintain it regularly to ensure accurate application.
- ✓ Display Hazchem signs and Hazard symbols if required. This depends on any legislation regarding the particular pesticide.

Using the pesticide

- ✓ Wear appropriate protective equipment for mixing and application as recommended on the label and the MSDS. (See Section 5. Personal protective equipment and clothing).
- ✓ Take soap, water and towel if you are working where there is no access to taps. Wash immediately with soap and water if exposure occurs.
- ✓ When mixing pesticides, open the containers of concentrate carefully as pressure may cause them to spurt. Only mix as much as necessary for immediate use.
- ✓ Where self-filling devices are used, take care when coupling and uncoupling as poor connections may cause splashing of the concentrate.
- ✓ Stir wettable powders carefully as dust can settle on exposed skin.
- ✓ Never put the end of a hose used to fill the tank with water into the tank as the spray mixture could be siphoned back into the mains supply.
- ✓ Only mix pesticides if their labels state that they are compatible.
- ✓ Use the correct concentrations of the pesticide and mixing agent. Overstrength pesticides lead to pesticide residues, toxicity problems and pesticide wastage. Understrength pesticides lead to development of resistant pests, weeds or fungi and inadequate control. There are also increased costs through waste of pesticide and labour.
- ✓ Aim for minimal drift by adjusting nozzles for low pressure and keeping speed low. Try to use only in low wind conditions. Avoid spraying with a following wind. A head wind or side wind is preferable.
- ✓ Cover feed and water containers near areas where stock graze.

- ✓ Avoid eating or smoking while decanting, mixing or spraying. Always wash hands before going to the toilet, smoking or eating.
- ✓ Record each pesticide used, how it was used and its effects.

After using the pesticide: Clean-up and disposal

- ✓ Have a shower after spraying pesticides or at least wash face and hands thoroughly with soap and water.
- ✓ Clean all spraying and protective equipment where run-off will not contaminate the environment. Triple rinse and puncture containers; do not burn them. Where possible, give the containers back to the manufacturer or supplier or ask your local council authority about disposal. Dispose of left-over pesticides as advised on the Material Safety Data Sheet.
- ✓ Dip contents should be buried in a wide, shallow pit (to increase the rate of biodegradation) near the dip if the council has no approved site. This pit should be on high, flat land at least 30-60 metres away from streams, dams etc. It should be away from houses, buildings and crops. Position it away from erosion gullies, sinks, dry watercourses, quarries, aquifers and underground watercourses. Soil should be deep, allowing for percolation through at least 2-3 m of soil, preferably partly through a clay layer, before reaching bedrock. The site should never be used for any other purpose and needs to be fenced to keep out stock and wildlife.
- ✓ Avoid contamination from residues in crops, animals and the environment by observing the 'withholding' and 're-entry' periods.
- ✓ Arrange follow up blood testing where appropriate.

When transporting pesticides

- ✓ Transport pesticides on the tray of the ute or truck rather than inside the vehicle. However, check that there are no projecting or sharp materials there which could damage pesticide containers. These containers should be secured so they will not tip over, spill or fall off. Steel drums, in particular, are likely to slide around. List the pesticides you are carrying in case of accidental spillage.

Storage of pesticides

- ✓ Storage must be in an area which can be well-lit, is lockable, has an impervious floor and shelving and is not likely to be flooded. Bunding of the area gives a raised mound around the edge of an area to allow pesticide spills and fire-fighting water to be contained within that area. The storage area should be separate from animal feeds, fertilisers and seeds. Kit-style pesticide storage sheds which contain all the desired features are available. Protective clothing and equipment should not be stored near pesticides.
- ✓ Washing facilities should include a low pressure hose for washing eyes and, preferably, a shower.
- ✓ The original containers should be used to store hazardous substances and labels should be intact. It is illegal to store pesticides in drink or food containers.

- ✓ Avoid fumes by ensuring good ventilation. Vents which are high and permanently open are a possible solution.
- ✓ Fire extinguishers should be available in all areas where pesticides are stored or used.
- ✓ In some states, Hazchem signs must be installed on the storage area.

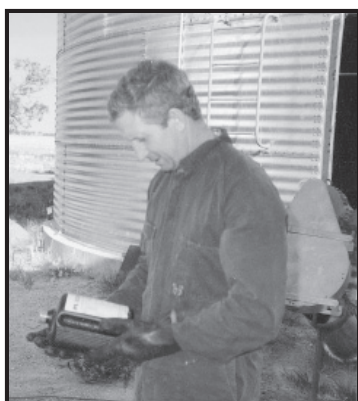


5. Personal protective equipment and clothing

Choice of personal protective equipment and clothing

A range of protective clothing and safety equipment should always be available whenever pesticides are handled. Store personal protective equipment away from pesticides. Different pesticides require different precautions and forms of protective wear. These instructions will be on the label and on the MSDS.

- PVC aprons are easy to wear and clean. They give good protection against spills and splashes when opening, mixing or decanting pesticides.
- Goggles/face shields or respirators should be worn when there is danger of splash or inhalation of the pesticide.
- The label instructions will guide the pesticide user as to which type of respirator to use. Pesticide cartridge respirators are not effective against hydrogen cyanide, methyl bromide, fumigants or low oxygen environments. Information on the label or MSDS will help.
- Boots should be PVC or rubber as untreated leather will absorb pesticides and eventually transfer it to the feet.
- Respiratory protection may be in the form of a half face respirator or a full face respirator which uses a pesticide cartridge or a replaceable canister, a powered air-purifying respirator, an agricultural hood or a spray helmet.
 - *Half face disposable masks (dust masks)* provide some protection against small particles like those in mists, smokes, metal fumes and non-volatile dusts. They are not suitable for mixing or applying liquids because of the risk of absorption of the chemical.
 - *The half face respirator* covers only the nose and mouth and will only work effectively with less than 0.1% air concentration of pesticide. It should be worn whenever handling open containers of pesticide, dust formulations, volatile liquids or fumigants; especially when working in poorly ventilated areas. Use only those which comply with AS Standards 1716 (cartridges) and 1337 (goggles). Ensure that the seal is effective by placing your hands or a piece of plastic food wrap over the intakes and inhale. The respirator should suck on to your face. Beards, gum chewing and some prescription glasses can interfere with the seal.
 - *Full face respirators* cover the whole face. They provide protection when the pesticide concentration in the air is up to 1% or 2%. This will only be the case when decanting volatile substances in a confined space (not recommended anyway) or when fumigating silos or glasshouses. Both these types of respirators protect the user from the pesticide but do not protect against a lack of oxygen. In that case, supplied air breathing equipment is necessary.



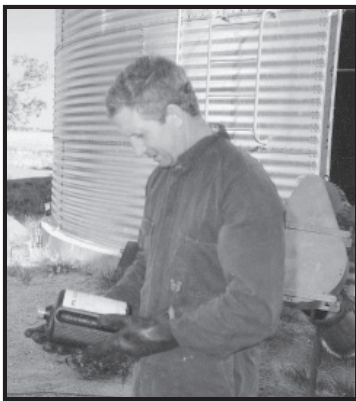
- *Powered air-purifying respirators* blow filtered air by a motor unit into a face piece and filter out pesticide particles and vapour. They are cooler because of the constant airflow over the head and face. They are available as a full or half-face mask, hood or protective helmet. Most are powered by a battery pack strapped to the wearer's waist or back. The smaller, lighter weight units have mechanical filters only; others can use filter, canister or cartridge.
- *Hoods* may be used to give total head protection while working in spray drift. They work in the same way as a half face respirator.
- *A spray helmet* will give better protection as it comes with a small compressor which pumps in fresh, filtered air.
- Hearing protection may be necessary if using a mister. This depends on the noise level of the machine and the length of exposure time.
- Most pesticide exposures occur through the skin, so it is advisable to cover as much of the body as possible when handling pesticides.

The minimum protective clothing recommended for handling pesticides is:

- Long-sleeved shirt
- Overalls or long trousers (reusable or disposable, trouser legs outside boots)
- Waterproof gloves (without material linings)
- Boots (water resistant)
- Hat (washable, not felt)
- Keep a change of clothes with you if you are likely to become contaminated/saturated with the pesticide and you are working away from the house.

Maintenance of personal protective equipment and clothing

- Maintain protective equipment to ensure that it is fully functional. Remove respirator filters and set aside. The face piece can be washed in soap and warm water. Valves can be removed and washed as well. Rinse these well, dry with a clean cloth and leave to air in a well ventilated area out of direct sun. The respirator can be stored in a sealed plastic bag or an unused lunch box away from direct sunlight. Wipe the outside surface of respirators but do not allow water to enter the filter. Activated charcoal also needs to be stored properly in a sealed container. Regularly check the one-way valves on your respirator to make sure they are still functioning.
- At this time, check that the face piece of the respirator is still soft, pliable and functioning. Change and use filters according to the manufacturer's recommendations. If a strong perfume can be smelt through a charcoal filter, it needs replacing. Keep goggles and headband clean as the headband is particularly prone to absorption of pesticides. They can be cleaned by soaking for two minutes in a mixture of 30 millilitres of chlorine bleach in 4 litres of water, then rinsed thoroughly with water and allowed to dry outside.



- Contaminated clothing should be changed daily or whenever it becomes damp with pesticide, and washed separately from the general laundry in the last wash of the day. Gloves should be worn whilst laundering and check the label on the container for any specific instructions regarding washing. **Discard any clothing which has become saturated with a pesticide. Those involved in aerial application, mixers and loaders need to take special precautions.** They need to change overalls at least once per shift or immediately following contamination. Gloves need to be checked for tiny holes by filling gloves with water and squeezing.

6. First aid

- Check labels and material safety data sheets before using any pesticides so that you are aware of emergency procedures in the case of exposure to the pesticide.
- If any symptoms of poisoning occur such as chest pain, nausea, blurred vision, excess saliva in the mouth or difficulty in breathing, stop work immediately.
- An effective First Aid technique can dramatically improve the outcome for the victim. At least two people on the farm need to be trained in First Aid.
- Develop a plan for every recognised crisis situation. Have relevant emergency numbers next to the phone and take the pesticide label with you to the hospital if poisoning occurs.
- First Aid kits should be in handy locations on the farm (including in the vehicle). The size of the kit will vary according to the number of workers on the farm. The kit needs to include a towel, clean clothing, an approved mask or mouthpiece for expired air resuscitation, disposable eye wash bottle and eye wash solution, ipecac syrup, soap, and nail brush. The legal requirements vary from state to state and should be checked with your local Occupational Health & Safety Authority.
- Have a fresh water tank on the vehicle for washing and decontaminating.
- Anybody who uses toxic pesticides regularly should have an annual medical examination after each spraying season. In particular, those people who use cholinesterase compounds need periodic checks of the cholinesterase level in their blood. This can be arranged by contacting their state/territory Occupational Health Authority (see Contacts later in this document) or your local doctor.

RELEVANT LEGISLATION AND STANDARDS

Legislation:

Occupational Health and Safety Act in each state.

Hazardous Substances Regulations under these Acts have been adopted in New South Wales, Queensland, South Australia, Northern Territory, Western Australia and Tasmania. These are based on national standards, and require hazard identification, risk assessment and risk control measures to be undertaken on each workplace handling hazardous substances. Most pesticides are designated as hazardous substances.

- Legislation in each state/territory concerning the use, storage and transport of pesticides and other pesticides ("control of use") legislation.

Codes of Practice:

Code of Practice for Control of Workplace Hazardous Substances [NOHSC: 2007 (1994)] deals with the following areas of pesticide safety in the workplace:

- Storage and use
 - Transport
 - Disposal
 - Training
 - Record keeping
- National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC: 2011(1994)]
 - List of Designated Hazardous Substances [NOHSC: 10005 (1994)]
 - Australian Dangerous Goods Code: Covers the carriage of dangerous goods throughout Australia, the licensing required and exemption requirements.

Standards:

AS 1716-1991: Respiratory Protective Devices

AS 1337-1992: Eye Protectors for Industrial Applications

AS 2507-1984: The Storage and Handling of Pesticides

AS2508 10.001 Safe Storage and Handling Information Card, Pesticides

AS1678 10.001 Emergency Procedure Guide, Transport

AS 3765-1990 Clothing for Protection Against Specific Chemicals

AS 1888-1976 Agricultural Spraying Oils (Emulsifiable)

AS3780-1990 The Storage and Handling of Hazardous Chemical Materials

USEFUL REFERENCES

1. *National Farm Chemical User Training Program- Reference Manual*. Rural Training Council of NSW Ltd. 1994 (available through participation in the National Farm Chemical User Training Program- contact Australian Agricultural Health Unit, Moree or your local TAFE for details)
2. Hock, W. K. Day, L.G. Morley, A.W. *Farm Chemicals Manual. A Guide to Safe Use and Handling*. AVCA. Sydney
3. *Veterinary Chemicals Accreditation Program*. Chemface Training. Queensland. 1996
4. Video: *You're the Boss: Safe use of Pesticides*. Public Health Unit. Turrumurra. 1989

CONTACTS

Australian Agricultural Health Unit

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Moree, NSW, 2400
Telephone: (02) 6752 8210
Facsimile: (02) 6752 6639



State/Territory Occupational Health & Safety Organisations as listed below:

- ☛ WorkCover New South Wales: Ph 131 050
- ☛ Victorian WorkCover Authority: Ph (03) 9628 8188
- ☛ Queensland Division of Workplace Health & Safety:
Ph (1800) 177 717 or (07) 3247 4711
- ☛ South Australian WorkCover Corporation: Ph (08) 8226 3120
- ☛ WorkSafe Western Australia: Ph (08) 9327 8777
- ☛ Tasmanian Workplace Standards Authority: Ph (03) 6233 7657
- ☛ Northern Territory Work Health Authority: Ph (08) 8999 5010
- ☛ Australian Capital Territory WorkCover: Ph (02) 6205 0200



Therapeutic Goods Administration (TGA)

Pesticide Safety Unit
GPO Box 9848
CANBERRA ACT 2601
Telephone: (02) 6289 7041
Facsimile: (02) 6289 7222

Report any problems with veterinary pesticides to:

National Registration Authority

PO Box E240
Queen Victoria Terrace
Parkes ACT 2600
Telephone: (02) 6272 5158
Facsimile: (02) 6272 4753



The Department of Agriculture in your state/territory

The Environmental Protection Authority in your state/territory

The Poisons Information Centre (Australia-wide) 131 126

AGHEALTH

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